SmartPDU

General

The basic settings for each device include the activation status (on/off) and a name under which all alarms and warnings reported by this device are displayed. This should be as clearly descriptive as possible in order to distinguish the devices.

By selecting the higher-level alarm group, the device is assigned to the system hierarchy.
Alarms are signaled in the higher-level alarm group.

The alarm delay specifies how long a device should delay the signaling of an alarm after it has been detected. E.g.: With an alarm delay of 30s, the device waits 30 seconds until the alarm is signaled and reported.

Finally, the type of device with which a PUE (Power Usage Effectiveness) measurement is carried out can be specified here.

Environmental monitoring

Environmental monitoring can be used to monitor external hazards such as temperature (overheating), relative humidity, dew point (condensation in systems) or air quality.
In the standard configuration, the environmental factors are permanently monitored, which indicates the “permanently active” alarm assignment. This setting can be retained for most applications.

Explanation of dew point hysteresis

If the room temperature approaches the dew point, dew may start to form. To trigger an alarm before this occurs, the dew point hysteresis can be configured. This represents the temperature difference before the dew point is reached in order to trigger an alarm.

Early fire detection

KentixONE offers monitoring of several measured values for early detection of sources of fire. These include CO measurement, a heat detector, infrared thermal image monitoring and air quality. As with environmental monitoring, the measured values for early fire detection are permanently monitored as standard via the “permanently active” alarm assignment.

Intrusion

Intrusion detection and reporting is one of the most important physical surveillance measures. Depending on the device, KentixONE offers one or more factors that are used to detect unauthorized access. In this case, the alarm assignment is set to “armed-active” on delivery, which prevents alarms from being triggered during normal business hours, for example. If the higher-level alarm group of

the device is armed, this activates the alarm evaluation of the intrusion detection.

External sensors

External sensors such as door sounders or leakage sensors can be integrated into KentixONE via the digital inputs.
An external sensor with an active alarm assignment (not “Off”) is displayed as a separate device in the Detail View and therefore also has its own alarm evaluation.
The external sensor is always carried out in the configuration screen of the device to which the sensor is connected.
In the standard configuration, an alarm group cannot be armed if an alarm is pending (so-called forced operation).
If the higher-level alarm group is to be armed even if an alarm is pending for the external sensor, the “Always arm” option must be activated.

Name	API value	Description
From	off	The alarm is deactivated for this input and the status/measured value is not updated.
Sharp-Active	armed-active	If the higher-level alarm group has been armed, alarms can be triggered. The status/measured value of the input is updated.
Permanently active	always-active	Alarms can be triggered independently of the switching status of the alarm group. The status/measured value of the input is updated.
fire	fire	Alarms can always be triggered. These are reported as fire alarms.
Sabotage	sabotage	Alarms can always be triggered. These are reported as sabotage/intrusion alarms.
System message	system	Alarms can always be triggered. These are reported as a system message.
Display only	display-only	No alarm evaluation takes place. The status/measured value is still updated.
Arming and disarming	arm-disarm	The assigned alarm group can be armed and disarmed via the input.
Arming	poor	The assigned alarm group can only be armed via the input.
Disarming	disarm	The assigned alarm group can only be disarmed via the input.

Up to two external sensors can be connected.

Switching outputs

The digital switching outputs can be used to control external systems such as sirens, LEDs or locking components (motorized lock, etc.).

The meaning of the alarm assignment differs for switching outputs; in this case, it indicates the function of the switching output or which alarms the output should switch when they occur.

Name	API value	Description
Sharp-Active	armed-active	If an armed-active alarm occurs in the assigned alarm group, the output is switched to high level for the set switching time. An acknowledgement also causes the output to drop back to low level prematurely.
Permanently active	always-active	If a permanently active alarm occurs in the assigned alarm group, the output is switched to high level for the set switching time. An acknowledgement also causes the output to drop back to low level prematurely.
fire	fire	If a fire alarm occurs in the assigned alarm group, the output is switched to high level for the set switching time. An acknowledgement also causes the output to drop back to low level prematurely.
Sabotage	sabotage	If a tamper alarm occurs in the assigned alarm group, the output is switched to high level for the set switching time. An acknowledgement also causes the output to drop back to low level prematurely.
System message	system	Alarms can always be triggered. These are reported as a system message.
Only for external devices and switching outputs		
Collective alarm (group)	collected-alarm	Output is switched to high level as long as an alarm is present in the higher-level alarm group. Acknowledgements have no effect.
Manual	Manually	Currently without function
Open doors signalize	signal-open-doors	Currently without function

Name	API value	Description
Collective alarm armed-active (group)	collected-alarm-armed-active	Output is switched to high level as long as an active alarm is present in the higher-level alarm group.
Collective alarm permanently active (group)	collected-alarm-always-active	Output is switched to high level as long as a permanently active alarm is present in the higher-level alarm group.
Collective fire alarm (group)	collected-alarm-fire	Output is switched to high level as long as a fire alarm is present in the higher-level alarm group.
Collective alarm sabotage (group)	collected-alarm-sabotage	Output is switched to high level as long as a tamper alarm is present in the higher-level alarm group.

Up to two external devices can be connected via the switching output.

Residual current measurement (RCM)

The integrated residual current measurement enables the detection of, for example, fire-hazardous currents, N-PE bridges or stray currents and can provide an early warning. As with environmental monitoring, the measured values for early fire detection are permanently monitored as standard via the “permanently active” alarm assignment.

Phases

Depending on the model, the SmartPDU monitors one or more measurement phases, which are also marked on the housing of the SmartPDU.
The alarm behavior of the monitored energy and current measurements can be configured separately for each measurement phase.

Alarm settings

Depending on the alarm assignment set, a monitored value can always or only trigger an alarm when armed and then sends an alarm to all users who have authorization for the device (the assignment is made via the alarm groups) and notifications for the alarm type. In principle, all alarm assignments can always trigger alarms. The only exceptions to this are “Arm-active” (alarm only if the higher-level alarm group has been armed) and “Display only” (no alarm evaluation takes place).

Warnings and alarms are always triggered if the value measured by the device exceeds (for Max.) or falls below (for Min.) one of the configured threshold values.

Name	API value	Description
From	off	The alarm is deactivated for this input and the status/measured value is not updated.
Sharp-Active	armed-active	If the higher-level alarm group has been armed, alarms can be triggered. The status/measured value of the input is updated.
Permanently active	always-active	Alarms can be triggered independently of the switching status of the alarm group. The status/measured value of the input is updated.
fire	fire	Alarms can always be triggered. These are reported as fire alarms.
Sabotage	sabotage	Alarms can always be triggered. These are reported as sabotage/intrusion alarms.
System message	system	Alarms can always be triggered. These are reported as a system message.

Webhooks

Webhooks in KentixONE offer the option of sending an HTTP request to an external server when an event occurs. Each webhook can be assigned the types of alarms or warnings for which it should be sent.

Webhooks also offer the option of mapping functions via the KentixONE SmartAPI that are not available via the standard configuration.
For example, if a fire alarm occurs, the switching outputs of an AccessManager could be activated to unlock the connected motorized locks.

Test functions

The physical functions of the device can be controlled manually here in order to test them.